

## ABSTRACT

To provide a low-ESR electrolytic capacitor having the advantages of high voltage-proofness and good stability in leak current.

A dielectric oxide film-having anode foil and a cathode foil put opposite to each other via a separator therebetween are coiled up to construct a capacitor device. In this, the separator is coated with an electroconductive polymer formed through chemical oxidation polymerization of a polymerizing monomer in a solution that contains at least a non-transition metal-based oxidizing agent and an organic acid compound. Even when the electrolytic capacitor with the capacitor device is driven in a high-humidity atmosphere and a large amount of water penetrates into it, the capacitor is free from a trouble of dedoping, and therefore keeps its high voltage-proofness and leak current stability. The electrolytic capacitor is resistant to heat and its ESR is low in a high-frequency region.